Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (original) A method of expressing a desired isoform of a gene product in a cell absent undesired isoforms of a gene product, said method comprising:
   (a) exposing a mammalian cell to at least one nucleic acid, said nucleic acid being at least a partially double-stranded ribonucleic acid and the double-stranded portion having at least 95% sequence identity to a common nucleic acid sequence shared by two or more isoforms of said gene product; and
   (b) introducing an expression vector encoding a desired isoform of said gene product into said mammalian cell, said desired isoform having a sequence comprising one or more mismatches relative to said double-stranded portion of said nucleic acid, operably linked to a promoter capable of driving expression of said desired isoform in said cell.

2. (original) The method of claim 1, wherein said common nucleic acid sequence is at least 19 consecutive nucleotides in length.

3. (currently amended) The method of claim~~s~~ 1 ~~or 2~~, wherein said common nucleic acid sequence is common to all endogenous isoforms of said gene product in said cell.

4. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 3~~, wherein the double-stranded portion of said nucleic acid is 100% identical to said common nucleic acid sequence.

5. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 4~~, wherein said nucleic acid is 19 to 25 nucleotides long.

6. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 5~~, wherein said at least partially double-stranded ribonucleic acid comprises a double-stranded portion of at least 19 nucleotides and at least one two-nucleotide single-stranded 3' overhang.

7. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 6~~, wherein said desired isoform comprises a sequence comprising two or more mismatches relative to said double-stranded portion of said nucleic acid.

8. (currently amended) The method of ~~any of~~ claim~~s~~ 1 ~~to 7~~, wherein said expression vector encodes said desired isoform using at least one codon that differs from the endogenous sequence coding said desired isoform.

9. (original) The method of claim 8, wherein said expression vector encodes said desired isoform using two codons that differ from the corresponding endogenous sequence coding said desired isoform.

10. (currently amended) The method of claim 8 ~~or 9~~, wherein said desired isoform has an identical protein sequence to the corresponding endogenous isoform.

11. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 10~~, wherein said desired isoform replaces a mutant isoform in the cell.

12. (original) The method of claim 11, wherein said mutant isoform is oncogenic, apoptotic, tumor suppressive, inflammation inducive or suppressive, or angiogenic.

13. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 12~~, further comprising determining the function of said desired isoform.

14. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 13~~, wherein said cell is a cancer cell.

15. (original) The method of claim 14, wherein said cell is selected from the group consisting of HeLa (cervical cancer), PC3 (prostate cancer), MDA-MB-231 (breast cancer) and MCF-7.

16. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 15~~, wherein said desired isoform is transcribed under the control of an endogenous promoter.

17. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 16~~, wherein said expression vector comprises a constitutive promoter operably linked to said desired isoform.

18. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to16~~, wherein said expression vector comprises an inducible promoter operably linked to said desired isoform.

19. (currently amended) The method of ~~anyone of~~ claim~~s~~ 1 ~~to 16~~, wherein said expression vector comprises a tissue-specific promoter operably linked to said desired isoform.

20. (original) A kit comprising reagents expressing a desired isoform of a gene product in a cell absent undesired isoforms of a gene product, wherein said kit comprises a nucleic acid being at least a partially double-stranded ribonucleic acid and the double-stranded portion having at least 95% sequence identity to a common nucleic acid sequence shared by two or more isoforms of said gene product; and an expression vector encoding a desired isoform of said gene product, said desired isoform having a sequence comprising one or more mismatches relative to said double-stranded portion of said nucleic acid, operably linked to a promoter capable of driving expression of said desired isoform in said cell.

21. (currently amended) A mammalian cell exhibiting isoform-specific expression achieved by any of the methods of claim~~s~~ 1~~-19.~~

22. (original) A method for treating a disease comprising administering to a subject in need of treatment an effective amount of a nucleic acid being at least a partially double-stranded ribonucleic acid and the double-stranded portion having at least 95% sequence identity to a common nucleic acid sequence shared by two or more isoforms of said gene product; and an expression vector encoding a desired isoform of said gene product, said desired isoform having a sequence comprising one or more mismatches relative to said double-stranded portion of said nucleic acid, operably linked to a promoter capable of driving expression of said desired isoform in said cell.

23. (original) A method of assigning function to a desired isoform, said method comprising:
    a) exposing a mammalian cell to at least one nucleic acid, said nucleic acid being at least a partially double-stranded ribonucleic acid and the double-stranded portion having at least 95% sequence identity to a common nucleic acid sequence shared by two or more isoforms of said gene product;
    b) exposing said mammalian cell to an expression vector encoding a desired isoform of said gene product, said desired isoform having a sequence comprising one or more mismatches relative to said double-stranded portion of said nucleic acid, operably linked to a promoter capable of driving expression of said desired isoform in said cell;
    c) identifying a phenotype of said mammalian cell compared to when said desired isoform is absent, and
    d) assigning said phenotype or function to said desired isoform.